

PATENT  
Serial No. 10/511,216  
Amendment in Reply to Office Action mailed on November 16, 2005

IN THE ABSTRACT

Please delete the current Abstract in its entirety and  
substitute therefor the enclosed New Abstract.

PATENT  
Serial No. 10/511,216  
Amendment in Reply to Office Action mailed on November 16, 2005

NEW ABSTRACT

A signal includes a runlength limited (RLL) encoded binary  $d,k$  channel bitstream, parameter  $d$  defining a minimum number and  $k$  defining a maximum number of zeroes between any two ones of the bitstream, or vice versa. The signal further includes a number of sections of respectively  $N$  successive RLL channel bits, called RLL rows, each RLL row representing a row parity-check code-word, in which a row-based parity-check constraint for the RLL row has been realized.  $K$  sections of respectively  $N$  successive channel bits, called column parity-check rows, are located at predetermined positions of a group of  $M$  RLL rows. The column parity-check rows include column parity-check enabling channel words, each realizing a column-based parity-check constraint for all corresponding segments of at least the  $M$  RLL rows of the group that correspond to a specific column parity-check enabling channel word, thereby constituting a column parity-check codeword.